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Applicant(s):: ARILON (FR)
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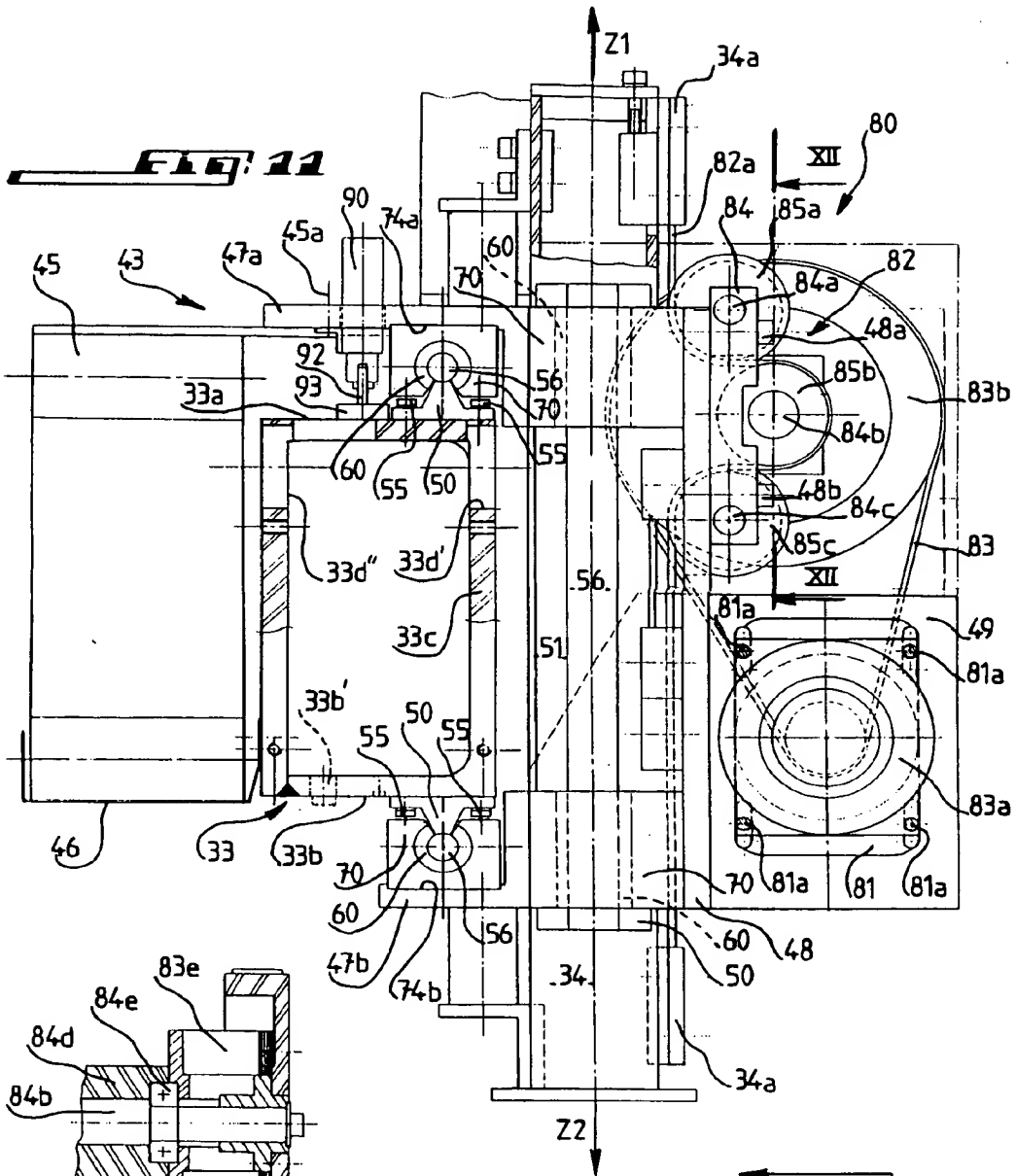
EC Classification: B25J9/00H1, B25J9/02B
Equivalents: FR2682909

Abstract

The present invention relates to a high-cadence industrial robot (2) for moving a tool (12) along the three axes of an orthogonal cartesian reference frame. This robot (2) which mainly consists of a deformable bracket (30) including three mutually orthogonal beams (32, 33, 34) at least two of which are mounted slidingly with respect to a support (1) for the robot (2), is characterised in that at least the vertically-displaceable beam (34) is guided along extruded aluminium rails (50) which are fixed to it, and which each include a bearing surface which has been hardened by an electrochemical surface treatment, the said bearing surface becoming housed with sliding in at least one bearing including a polyester bush. The invention in question applies to the production of robots by virtue of which the tool may be displaced at significant speeds and with significant acceleration.

Fig. 11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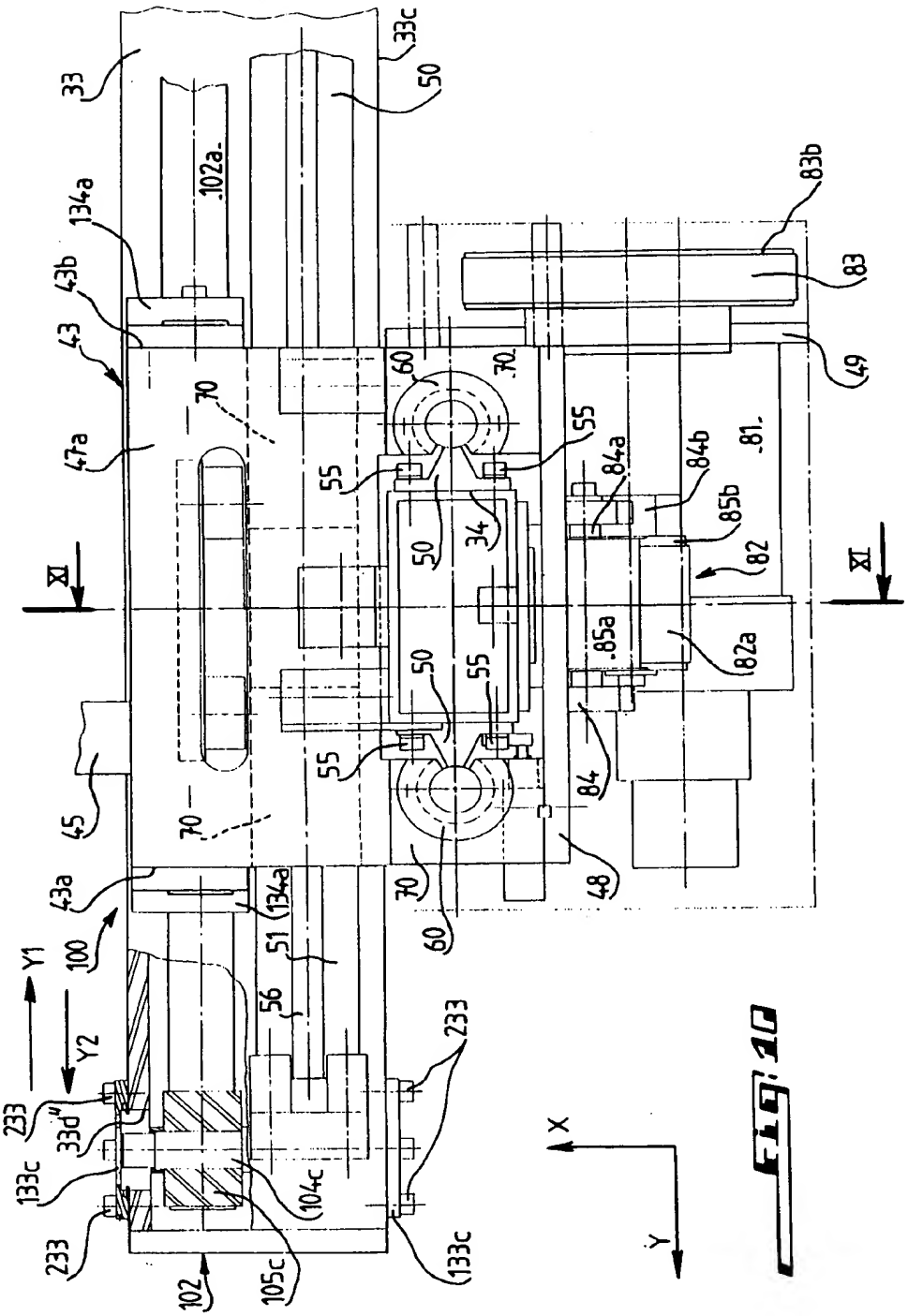
XII
82a
84
85a
82
84a
48a
85b
83b
84b
48b
84c
85c
83
56
51
49
81a
83a
81
34
Z2
X
Z
45
43
47a
45a
90
74a
60
70
92
93
33a
55
50
33d"
33d'
33c
33b'
33b
46
33
47b
74b
48
83e
84e
84d
84b
83d
83b
83

Fig. 12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50
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134a
43b
43
83b
83
49
47a
70
60
55
84a
84b
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82
34
XI
82a
85a
45
84
48
43a
134a
51
100
Y1
Y2
56
233
33d"
133c
104c
105c
102
X
Y

Fig. 10

Fig. 5

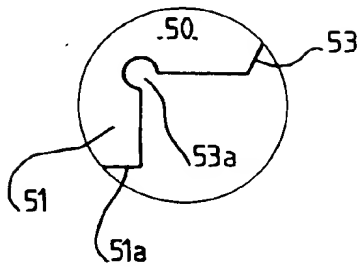


Fig. 4

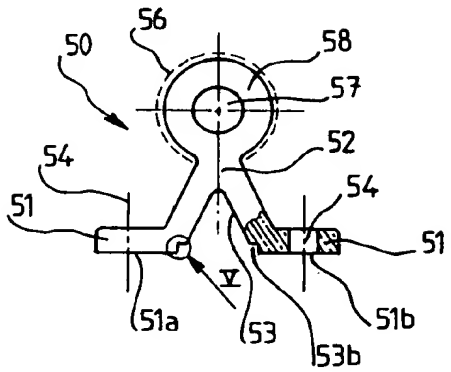


Fig. 6

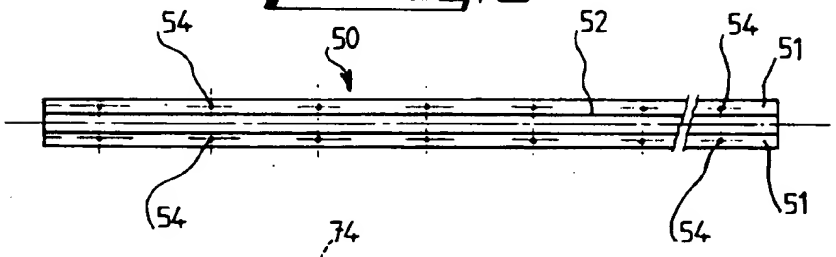
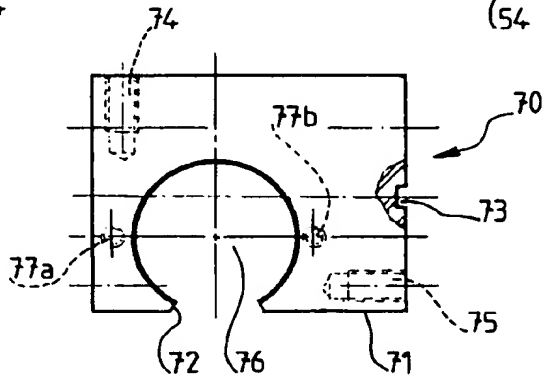


Fig. 7



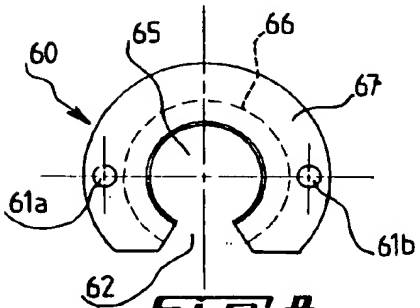


Fig. 8

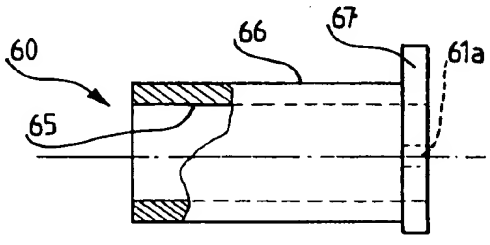
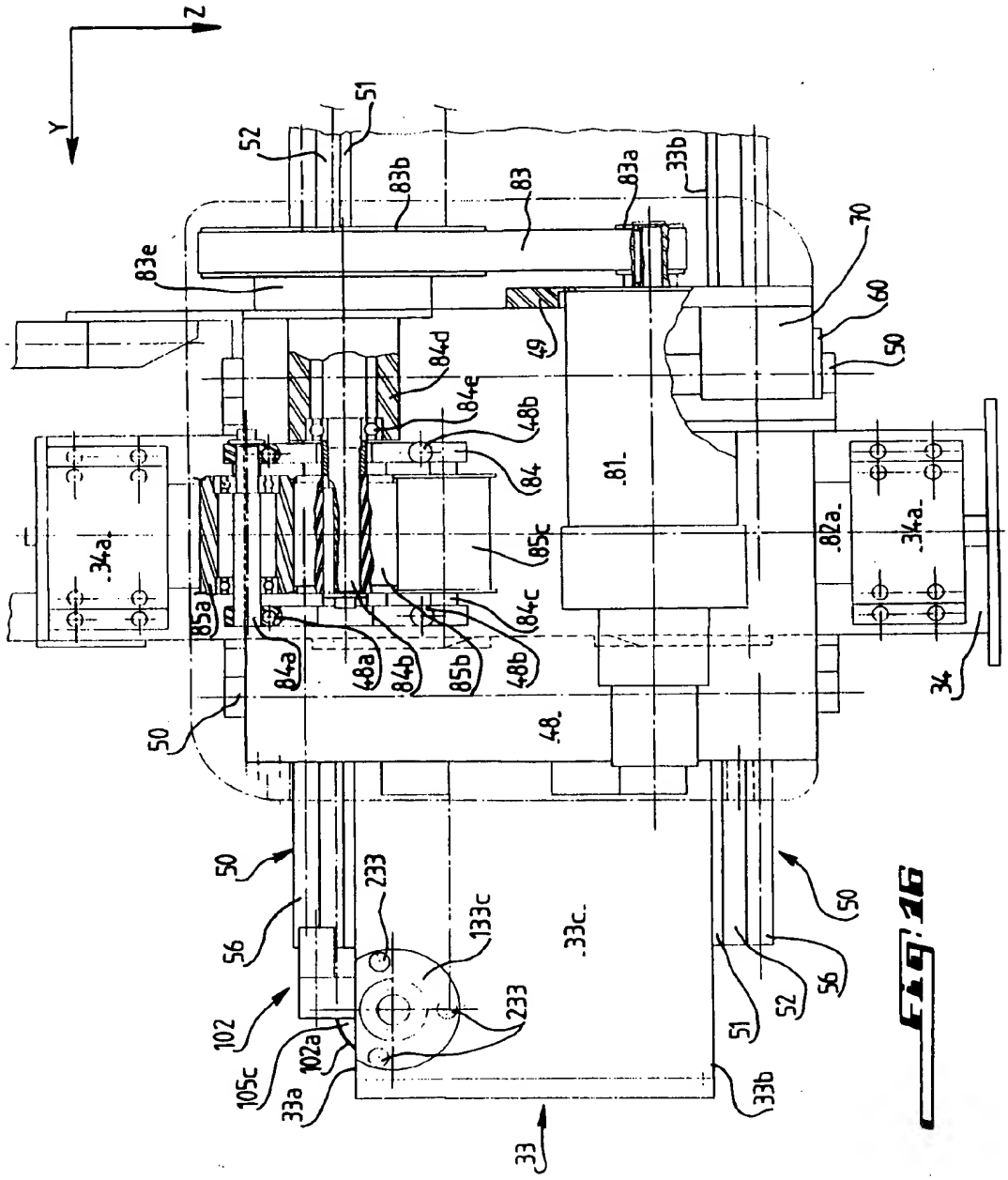


Fig. 9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52
83b
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83a
33b
83e
70
60
50
49
84d
84e
48b
84
81
85c
82a
34a
85a
84a
48a
84b
85b
84c
48b
34
48
50
50
233
133c
33c
56
102
102a
105c
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233
51
52
56
50
33b
33

Fig. 16

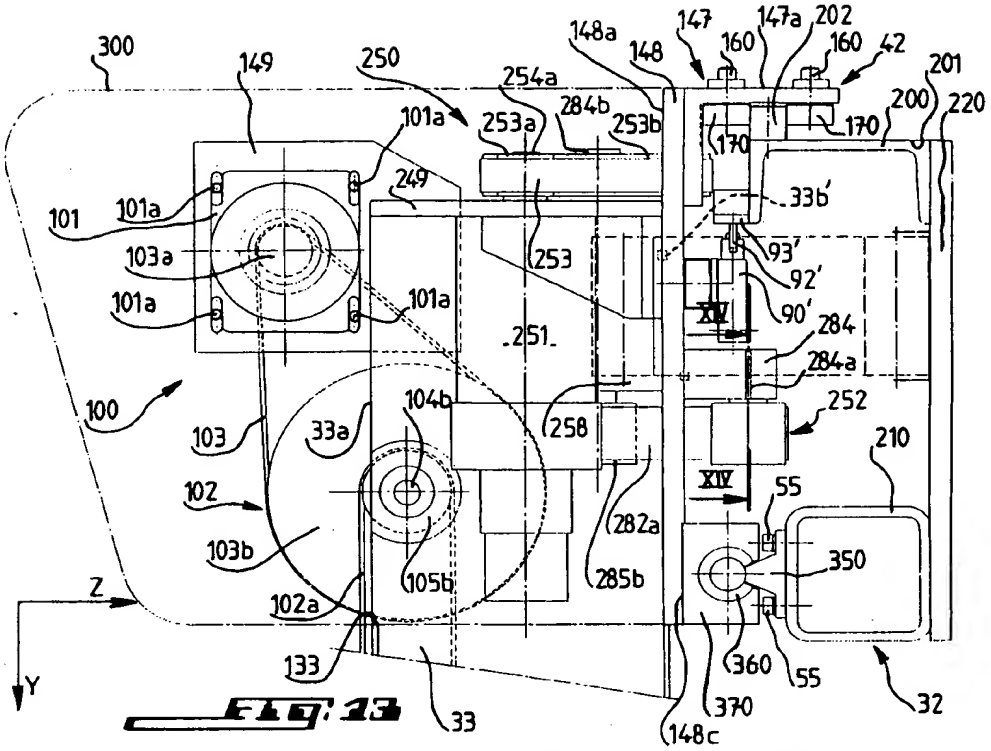

Fig. 13

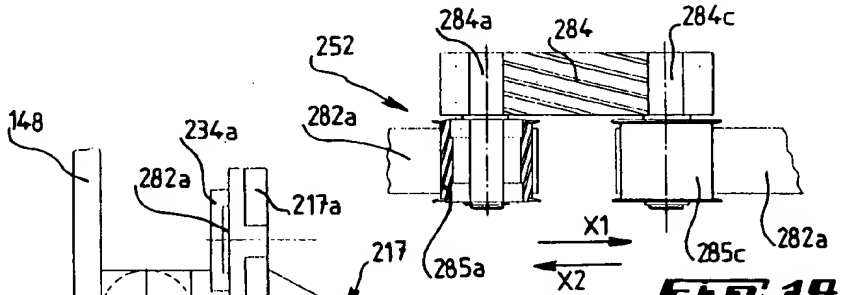

Fig. 14

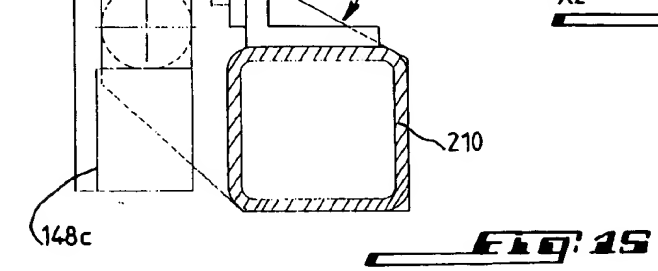

Fig. 15

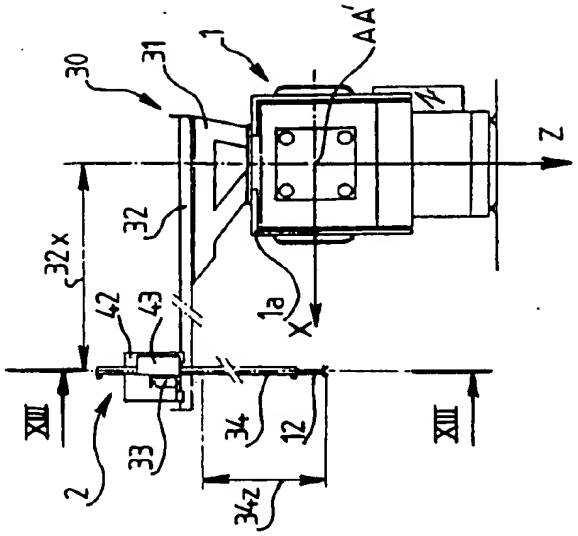

Fig. 2

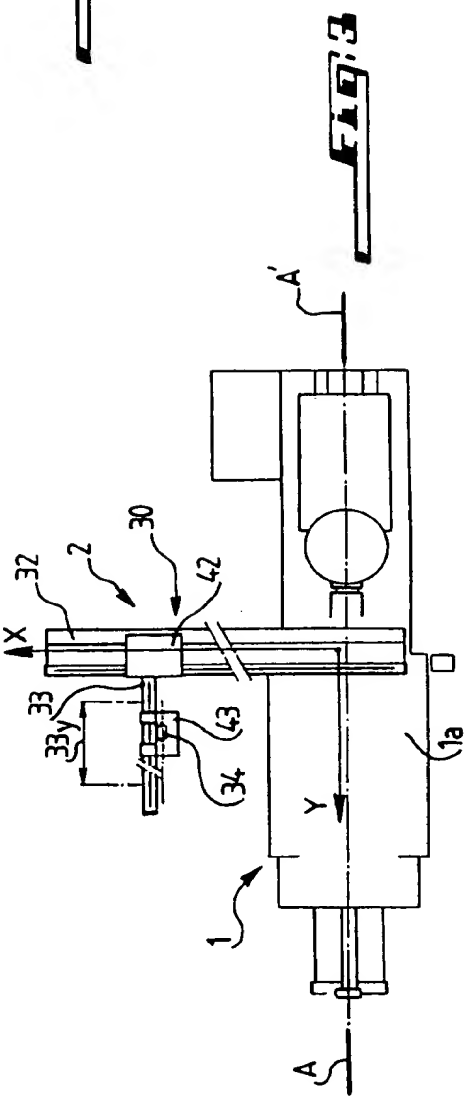

Fig. 3

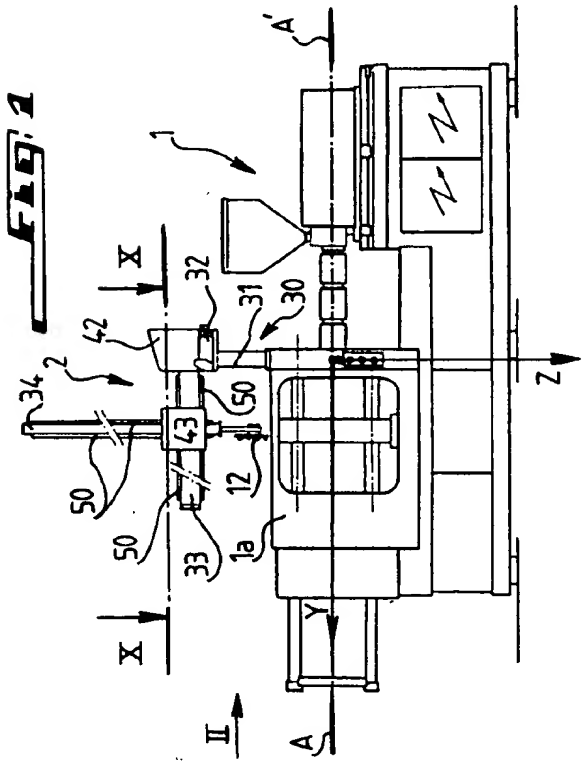

Fig. 1